A SAFE METHOD FOR UPGRADING FIRMWARE OF OPTICAL DISK PRODUCT $\underline{ ABSTRACT}$

[0038] The present invention provides a safe method for upgrading firmware code for optical disk products without corrupting firmware even if an abnormality occurs during a upgrading a firmware process. A nonvolatile memory device of the present invention may store a boot system image and an application ware image separately. End users may update the application ware image by executing an upgraded application program. However the boot system image stored in the nonvolatile memory device may not be modified at any event and it may be used to restore the optical disk product from a system failure caused by a corrupted firmware.